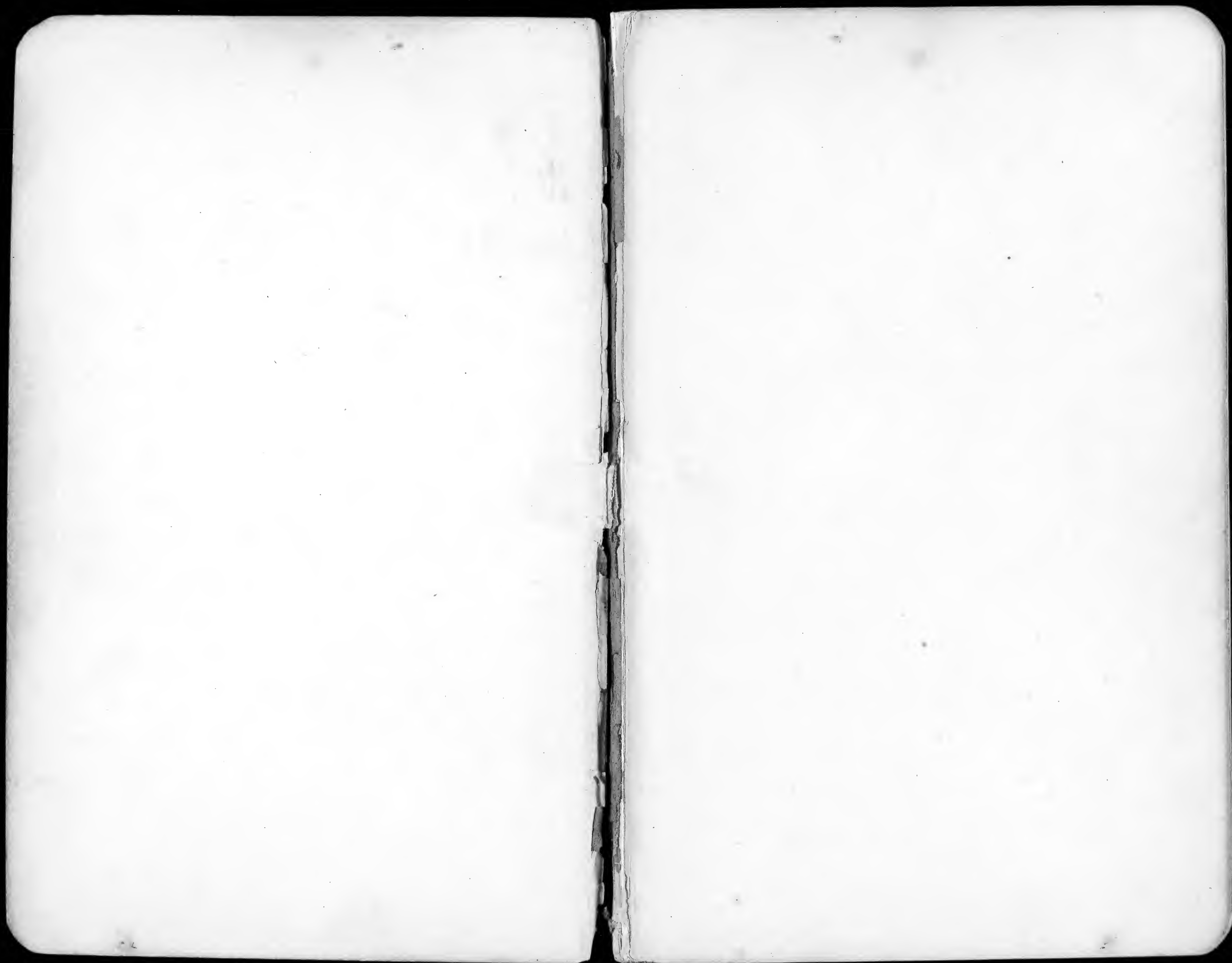


Hudson Bay



June 14 Winnipeg to West Selkirk ^{Man.}

Having completed our outfit and made all necessary arrangements with the Hudson Bay Co. we left Winnipeg about 4 P.M. with our outfit in our canoe in order to take the N.W. Nav. Co. Steamer scheduled to leave West Selkirk in the morning of June 15. We were delayed somewhat by shoal places at several places at the so-called "Rapids" and by being unable to sail but little for lack of wind, and so did not arrive at Selkirk until nearly 12 at night when we tied up near the steamer in which we were to embark.

The course of the Red River between Winnipeg & W. Selkirk is very winding making the distance by water nearly 30 miles. The banks are mostly of clay rather high and steep. a good deal of limestone occurs particularly along the latter half of the portion traversed. The banks

West Selkirk to Lake Winnipeg

are sparsely wooded with Alnus
Aspen, willows etc there being
apparently very little timber
away from the river.

We noted the following birds. Knigfsch
Buffle head duck, Actitis Aegialitis
rocyperus, Corvus am., Agelaius
Scolecophagus cyanocephalus
Sturnella leucophaea Falco sparverius
Progne subis Calidris Icterus
Zonotrichia leucophrys Hyla
fuscescens Circus hudsonius
Zenaidura macroura Nighthawk

June 15. West Selkirk to Lake Winnipeg

The steamer left West Selkirk about
11:30^{am} and reached the mouth of the
river (22 miles) about 1 o'clock.
The banks gradually become lower and
carry less trees until several miles
above the mouth there is scarcely
any bank to the river but extensive
marshes stretch out on either side.
On nearing the "narrows" about 3 o'clock
we approached near enough to the western
shore to see that it was rather

Lake Winnipeg

heavily wooded with brush and
evergreens which I was told com-
prised Fir spruce & Jamarack.
The same forest is said to
extend southward very nearly
to the mouth of the Red River
but at the time of entering the
lake we were too far from the
shore proper to distinguish its
character.

Great numbers of Black Terns
inhabit the marshes at the mouth
of the Red R. and we also noted
a few of the following species
Corvus americanus, Larus franklinii,
Tachycineta bicolor, Large Gull (longbill)
Ardea herodias, Botaurus lentiginosus,
Fulica americana.

June 16 Lake Winnipeg Bull Head nearly to outlet of Lake

We stopped at Bull Head very early
in the morning to take on wood
and left about 6 am. Heard
Red-eyed Vireos and Blue-backed
Thrushes Land moderately high
and well wooded with Pine (sp?)

Lake Winnipeg

Spruce Juniper Birch and Poplar the deciduous trees predominating. did not get a chance to go ashore so could not identify the species of Pine and Spruce.

about the middle of the day we found a sandy point on which were great numbers of gulls apparently nesting. Anchored about 4 o'clock near George's Island. on which large numbers of Geese were seen to rest. but as our time of departure was uncertain we were unable to go ashore. Saw a flock of 15 or 20 Pelicans just before evening.

June 17. Lake Winnipeg to Norway House.

Continued on to near outlet of Lake Rock and uncertain channel made it necessary for the ship to move slowly and about 1.30 P.M. the ship struck fast on a rock. They were unable to get her off and after some delay the passengers embarked in a small tug for Norway

Norway House

House. The tug also towed our canoe and baggage and we arrived at Norway House about 6.30. ~~Land~~ On the way we landed at Taft's Fishery at the outlet of Lake Winnipeg where I caught two small frogs in the grass. Also stopped a few minutes at Rosville Mission about two miles from Norway House. and I took some snap shots.

We were kindly received by Mr. K. McDonald in charge of Norway House and furnished accommodations. We will have to wait until the goods are landed from the steamer before outfitting for the interior, or will put in the time collecting.

June 18. Put out a lot of traps and shot a few birds including two male sharp-tail grouse. There were three, evidently all males.

Took 2 meadow mice and a sorex (richardsoni?) in our traps, also shot a red squirrel. Birds seen rather scarce.

Norway House

June 19 made a fairly good catch of Sorex Microtus and Peromyscus and Eutamias in our traps and set more. Shot two Picoides arcticus in a large tract of burnt forest east of the Post. Heard a stake driver in a marsh near the Post.

June 20. A good catch of Eutamias, Sorex, Microtus and Peromyscus. Shot Histiotus stellaris in marsh back of Post. Examined the furs in storeroom of H.B. Co. They included Ursus, Lynx, Nephelis, Lutra, Mustela pennanti, Mustela americana, Fiber, Putorius richardsoni, Vulpes fulvus, leucis. (gray) Vulpes lagopus, Castor, Lutra. All are said to be from the vicinity of the fort, with the exception of the Vulpes lagopus which is known to have come from (Deer Lake) 80 miles north of Oxford House. They are said to be found on the coast ^{of Hudson Bay} in winter south at least to York Factory but to be unusually rare inland as far south as the locality from which this one came.

Norway House

June 21 made fair catch of mammals including Zapus and Microtus. Very few birds seen. June 22. Spent a good part of the day making preparations for our anticipated departure tomorrow for York Factory via Oxford House. Took some photos in the afternoon of Junco banksiana etc. June 23. Took up all our traps and made up our specimens. A small Sorex picked up in the ~~garage~~ at the post. Finally got away about 3. P.M. Passed through several small expansions of the river ~~in one~~ (or lake) in one of which a loon (Gavia ^{inlet}) was seen. A few gulls and terns and several ducks (Merganser) were also seen. While passing through one of the lakes, about 1/2 mile in width a sharp tail grouse crossed it from shore to shore just behind us. Shores rather low and rather heavily wooded with conifers (spruce fir and pine) and Populus tremuloides found

evening made a portage to avoid
the Sea R. Falls and made
camp about 1/2 mile below. At camp
saw Sparrows Hawk Kingfisher. Olive
backed Thrush etc. Put out a few
traps. Heard loons calling at nightfall
June 24 Took up our traps. Took
only 1 Peromyscus & 1 Eutamias.
Left camp at 6 o'clock and paddled
through a lake about two miles long
with rather high shores, clothed
mainly with Poplar (tremuloides)
and Birch. Then through a chan-
nel past a high Rocky ridge
(to the left) and into ~~Hurry Lake~~,
a broad shallow lake ~~grown up~~
~~nearly covered (thinly) by sedges~~
(Scirpus)

bordered by grassy meadows and
inhabited by many Black Terns.
Common Terns and gulls. Thence into.

Hurry Lake, broad & shallow
and grown up with sedges (Scirpus).
This lake was rather rough ~~but~~
and we had to contend with
a strong head wind, but.

we crossed it safely and
entered the Echamashish, a
winding sluggish stream
with low banks clothed with
willows and alders. Occasional
rocky eminences occur and
patches of spruce woods.
After travelling for several
miles through this, we came
to the first dam, made for
the purpose of holding back
a sufficient depth of water
to enable boats to pass through.
We slid our canoe over
this with out unloading and
stopped for lunch. While
the men were preparing
this, I took 3 pickerel of
about 2 lbs each from the
pool below the dam, with
a spoon hook. Near here
we shot 3 muskrats with
the pistol. At ~~short distance~~
above we passed the second
dam, in the same manner
and camped a short dis-

lance above it. Picked up
the cranium of a moose at
the second dam. where I
also shot a spotted Sandpiper
saw Parus hudsonicus at.

Camp. and many Perisoreus
during the day. All along
the Echamamish we saw signs
of Moose and at our
camp their tracks are
plentiful. Set traps here.

June 25. Remained at our camp at
Mapple dam until noon to get
specimens and catch up with
our skinning. Got a few birds
and ~~left~~ went onto the Painted
Stone Portage at head of Echamamish.
Here the river comes to an abrupt end
and at a rock 28 yds wide ~~is the~~
~~other end of which~~ dividing it
from a lake. There must be an
underground outlet from this
lake into the Echamamish. We camped
here and set out a lot of traps.
Shot a Sceloporus on the way.
The yellow pond lily (Nuphar) common
all along the Echamamish.

June 26. Painted Stone Portage

Took about 38 mammals in
our traps including Sorex,
Microtus, Peromyscus, Eutamias,
Zapus and Fiber. Left camp
pretty early and after passing
through the lake below the
Painted Stone we passed through
a succession of small deep
channels with high rocky
banks. ^{and past mouth of White Water River} hence through two good sized
lakes. the eastern shores rather
marshy and the western (in general)
rocky. A short distance below the
outlet of the second we came to
the Robinson Portage made to avoid
the Robinson Rapids. This portage
is $3\frac{1}{4}$ mile long and extends over
nearly level ground in a nearly
straight line. ^{about due north.} A ~~road~~ beaten
road 12 to 15 feet wide the result
of long continued use in passing
with York Boats extends all the
way. After climbing a gentle slope
it descends gradually for a little
over half the distance then crosses

a little valley then ~~attends~~ turns very slightly to the right and passes over a nearly level stretch nearly to its end. when it passes down a rather steep declivity to the water. Concluded to remain here 1 day. Set out a lot of traps.

June 27. Lower End Robinson Portage ^(small)

Caught about 25 mammals. Sorex Microtus Sotomys Peromyscus.

Shot a couple of Black Terns in the marsh bordering lake below the Portage water thrushes. Olive back. Jays. Gull. Spree Wilson warbler White throat sparrow King brake, Ruby crown Kinglet Red-eyed Vireo Night Hawk.

The Indians went hunting in the afternoon and shot a yellow legs. (T. flavipes).

June 28. Took up our traps. Got Zapus + Sorex richardsoni in addition to other species taken the previous day. Left camp and passed through a succession of channels and small lakes

mostly with marshy shores. Saw ducks (sp?) and Totanus flavipes which lit on a small dead tree.

Weather fine in morning but soon changed to cold & cloudy. Saw a family of varrens and shot a Wilson's tern a few miles below camp. After passing through several lakes with marshy shores, we passed through a succession of rocky gorges, and were obliged to make two portages. The second first was run with the canoe without the baggage but the second called Hells Gate Rapids we also carried the canoe around. On the face of the cliffs on the north bank of the river before reaching Hells Gate we saw two nests, presumably of the Golden Eagle as we saw one flying about near one of the nests. I climbed to one but it was empty. We also saw several nests of the Phoebe below the rapids. one containing

young nearly ready to fly.

A few miles below we came to Pine Lake and found it very rough but crossed it and camped near its outlet just as a storm burst upon us. Put out a few traps.

June 29. Took only 1 ~~hour~~ and some Peromyscus after leaving Pine Lake we passed for several miles through a succession of small ponds and channels mostly with marshy shores to Windy Lake which was very rough, with a head wind by paddling from point to point we passed through it and continued on to Oxford Lake. Passing 4 rapids, at two of which we were obliged to make portages. We next passed into a long narrow lake which proved to be an arm of Oxford Lake and soon after entered the main part of the Lake and continued for several miles from Point to point and finally crossed it and encamped on its eastern shore.

On the shores of Windy Lake we passed close to an Osprey's nest in a dead spruce or fir. It evidently contained small young. Saw several loons and many white winged Scoters and a few mallards one with a brood of young which took to the woods on our approach.

Found a nest of the Least Flycatcher at our camp on Oxford Lake and set out a few traps.

June 30. Left camp early and paddled against a head wind until about 4 in the afternoon when we arrived at Oxford House. It is situated on a grassy knoll the highest ground in the vicinity. Mr William Campbell, the officer in charge, met ^{us} at the landing and gave us the freedom of the Post. We put up our tent in the enclosure and put out some traps in the field and moved back of the Post and in the garden where signs of mice were plentiful. An Indian boy brought us a Zapus

Oxford House

which he had killed in the grass also a yellow warbler skinned and stuffed. The country all about is densely wooded with the exception of the cleared space around the Post and the marshes at the outlet of the Lake. Picea Larix Abies and the two species of Populus mainly compose the forest. with alders and willows on the lower portions of the ground.

July 1. Took about 20 mammals in our traps including Lepus, Microtus & Peromyscus.

July 2 Mr Campbell tells me that he caught an arctic fox Vulpes lagopus some years ago within $\frac{1}{2}$ mile of the place (Oxford House). Made a large catch of mammals in our traps and put in most of the day making them up.

July 3. Got a good catch of small mammals and a mink. Got some skulls from an Indian. They had been more taken some years ago near the place and comprise Gale, Mustela.

Lutroidea Putorius Castor Voles
July 4. Left Oxford House shortly after noon and after passing through Back Lake we entered the Front River and after passing through several rapids at which we made partial portages we arrived at the Front Fall said to be 9 miles from Oxford. We camped here and while the men were getting supper we skinned some rabbits and squirrels and a mink. We also set out a few traps.

The Front River makes a jump of some 12 or 15 feet. Passed which we made a portage of about 30 yards embarking just below the falls.

July 5. Left camp before 7 o'clock and soon entered House Lake. Continued along from point to point until about noon when we entered the narrow portion connecting the two main parts of the Lake. Here we had a favorable wind

and sailed several miles but soon after reaching the eastern part of the Lake we were obliged to take down our sail and paddle against a head wind. Camped on an Island about halfway through this portion of the Lake. The shores of the first part of the Lake are rather high and rocky and several elevations of from 50 to 100 feet, unusual in the region were noticed. At the narrows the shores are very low and after passing into the eastern portion of the Lake they are also rather low.

About midway of the Lake we saw a poplar which had been cut down and partially cut up by Bearers. It was about 5 inches in diameter.

July 6. Left our camp about 7 o'clock and about 10 reached the Jack River the outlet of the Lake. In the 10 miles of this river we passed 4 rapids at all of which we made portages

of our baggage but the Indians took the canoe through all but one, ^{down} ~~portage~~ Both Poplars For Spruce Barkman Pine and Birch occur all along. We reached Swampy Lake about 4 o'clock and as usual encountered a strong head wind. This Lake is shallow and many water plants. _____ occurs.

We passed nearly through the Lake and camped just before sunset on a rocky point on the western shore.

July 7. Left our camping place early and passed through the remainder of the Lake against a very strong head wind. Here the shores of the Lake are higher than usual and several quite high heavily rounded ridges are in sight to the eastward.

We shortly entered Hell river and paddled down it all day making 8 portages besides several times lightening the canoe by portage

ing a part of the baggage
About the middle of the afternoon
we came within sight of Brassy
Hill by far the highest land
in the region and shortly after
the banks of the river became high
and steep being composed of
clay. This continued for some
distance. We camped a short
distance below the Hill on the
west bank of the river. At
this point the banks are low
and in some places swampy.
The Forest passed through today
is composed of the same trees
as all along heretofore.

We saw many Golden-eyed ducks
a few American Mergansers and
a mallard with young. Many
large gulls and a few small black
headed Gulls. a few ospreys. Bronzed
Grouse and many water thrushes. a
pair of the latter were feeding
young just from the nest
killed a pigeon Hawk while crossing
one of the portages. It undoubtedly

from its actions had a nest in
the vicinity but a careful search
failed to locate it. The other
bird was seen with food in its
claw from which I inferred
that they had young
July 8. Got started from camp rather
late and within a few miles
passed two portages and about
11.30 arrived at the Rock Portage
the last on the route. Here the
river is divided by a large
ledge into two main channels
the one on the left being divided
again. The river here falls 5 or
6 feet within a few yards.
We had for dinner here, a jack-
fish 33 miles long which we caught
below the rock. Collected a few
plants and took some snap shots
the high clay banks characteristic
of the part of the river begin in
earnest a few miles above the
Rock Portage. They are clothed
except where landslides have
occurred with a good growth

of ~~the~~ Spice Fumeroak and
two species of Poplar with
a fringe of Willows & Alders
or rank grass at the water's edge.
Passed through nearly 30 miles of River
bordered almost continuously by
these high clay banks sometimes
150 or 200 feet in height.

Numerous small streams have
cut their way down to the
river forming side canons.

July 9. Left our camp quite early and
soon passed the mouth of the Fox
River a large stream uniting with
the Steel River the combined
streams being called the Steel R.
Just below this point we killed
3 half-grown geese, which
were swimming down stream
having probably come down
the Fox R. from the interior.
About 4 P.M. we reached the
Junction of the Steel with the
Shanematawa a still larger
stream joining it on the left
side. and forming the Hayes

Proceeded down the River until
about 8 o'clock when we camped
among some willows on the
left bank having come about 50
miles.

July 10. Proceeded down the Hayes
River to York Factory. Passed the mouth
of the Pennygutaway River on our
left. High Clay banks on both sides
and timber rather thin and stunted.
Stopped for lunch at the foot of a
high clay bank where many shells
were washed down. Picked up
some from a point nearly 100
feet above level of the water. At
this place about 25 miles from
York saw Water Thrushes & Blackpoll
Warblers. Near here we stopped at
an Island where Demipalmated Plovers
and Common Terns were breeding.
Many young of the Plovers were running
about on the beach.

At a point about 10 or 15 miles above
York Factory where we stopped
for dinner we caught a few small
fish in a little stream flowing

York Factory

from an old Beaver Pond. Reached York Factory about 7 o'clock. Made partial arrangements about getting to Churchill after spending a few days here. Dr. Milne thinks can send us and that we will have no trouble about getting back when we want to. July 11. Looked over the skins at the storhouse they included Lutra from vicinity of the Post Lutrola Putorius lestor. Vulpes, red & cross Vulpes lagopus ^(white) many of which are taken in the vicinity one Vulpes lagopus in the blue phase which is very rare about here. Thalarectos which are often seen in the vicinity and sometimes as far south as the Severn. Mustela from vicinity. A few muskrats (Fiber) are taken. which have evidently come down the river but which do not thrive well and seldom survive the winter even if not trapped. A moose skin which came from God's River was also there.

York Factory

Dr. Milne tells me that moose are gradually working nearer to the coast. Many skins of Arctomys from Foot Lake were there and I obtained 4 and the skin of an arctic hare which was taken in the vicinity. Also obtained from Dr. Milne a skeleton of a beaver taken near the Post and the skull of a ♀ Thalarectos. He tells me that only very occasionally a seal is killed in the vicinity usually he thinks the common Harbor seal (Phoca). July 12 Got a fair catch in our traps. Peromyscus. Microtus & Eurostomys. Dr. Milne presented me with a fine skull of an adult ♂ Thalarectos killed about 1890 between here and Churchill. He tells me of the killing of a male muskrat about halfway between here and Ft. Churchill in August 1897. A pair were seen several times during the summer. by Indians and

York Factory

the bull finally killed. He tells me that one fisher (Muskele pernanti) has been killed about 50 miles east of here toward Cape Zatuam within 3 or 4 years and he has seen the track of one about 40 miles south of here.

July 13. Made a trip to Beacon Point & back spending 4 or 5 hours on the point in the marsh and on the beach. Saw a muskrat and signs of others. Saw 5 yellow rails and killed 3. Obtained a muskrat from an Indian who killed it on the Point. Saw quite a number of species of birds elsewhere listed. My brother killed a Helminthophila near the Post. Took Tritomys, Microtus, Peromyscus in traps. Collected a few plants in the marsh at the point. As I was returning from the point saw a school of White Porpoises in the river about halfway to the point. They were going out with the tide and made a great variety of noises

York Factory

from a shrill scream to a hoarse snort or grunt. which can be heard a long way. Dr. Mulin tells me that the shrill noises are made by the young ones.

July 14. Put in the whole day skinning specimens mostly birds made a very poor catch of mammals.

July 15. Got a few specimens in our traps and finished up the birds left over from yesterday only a few.

July 16. Only a few specimens in our traps. Packed up some specimens and made preparations to leave early in the morning in a large boat belonging to the establishment for Fort Churchill.

July 17. Left York Factory about 7.30 with a fair wind and soon reached the mouth of the river where we were obliged to wait until the tide rose a little to get over a bar. after about an hour delay we resumed our way. Saw several whales ^{dolphin} (Brea) and seals during

ing the forenoon. About noon
the wind nearly died down.
In the afternoon we saw
upwards of a hundred
white whales and 15 or 20
seals. and a few large
birds like a gull but dark
~~brimmed~~ (Jaegers?) a few terns
one of which was shot and the
wing & tail saved. Toward
evening we ran in toward
shore and anchored, there
being indications of a storm
and we lay to all night
with much wind and rain
July 18. Early in the morning
the storm continuing we
moved the boat in nearer the
shore. A couple of Indians
travelling in the vicinity came
aboard. trading about waist
deep. They brought some caribou
meat and reported killing four
caribou. and saw four this
morning. Yesterday saw a
white bear which seeing them

put out to sea again. Remained
here all day having beached
the boat during the after-
noon. The weather continuing
cold, windy & raining we passed
an uncomfortable day.
July 19. On account of head-
winds we remained all day
in the same place. In the morn-
ing when the tide was out
killed a tern and some red-
backed Sandpiper, and
the Indians a Hud. Godwit
Hud. curlew, a Jaeger. Duck ^(Oxyechus acuta) etc.
About 6 o'clock P.M. as the tide
left again I went ashore about
3 miles distant accompanied
by one of the Indians. Remained
until dark killing several Sand-
piper a Godwit, a pair of
Lagopus lagopus & a young
fox. Tracks of Caribou were
numerous but we saw none
of the animals.
The place where we went
ashore was one of the so called

Prairies or Barrens which extend from a short distance N. of York H. northward. They are separated in a few places by intervals of wooded country on the banks of the rivers which here enter the Bay. Between these rivers - ~~in some~~ ~~the woods the woods~~ the borders of the woods presents the concave side of a rough half circle leaving the Barrens. Gravelly ridges a few hundred yards apart extend through these barrens at least at the point where I landed in a general North and South direction or parallel with the shore line evidently the remains of former shore. Between these gravelly ridges occur marshy places mainly grown up with dwarf birches or willows, and in these marshes are a great many shallow ponds or sloughs. A good many Northon Phalaropes were swimming

or flying about these ponds and seemed to be partially nocturnal.

A few shore larks (Otocoris) were seen near the beach ~~and a single Ring-billed Gull~~. The young fox killed was one of two which attracted our attention by barking at us. We investigated and discovered a den into which the young had retreated. Squeaking soon brought one of them out and the Indian shot it. I saw the old one at a distance but she was too wary to venture near.

The den was in a high portion of one of the gravelly ridges about a mile back from the shore and as usual the hole had a great many entrances. Paths extended into the surrounding marsh in all directions and feathers of Ptarmigan and other

Birds were found about the harbours.

July 20 Early in the morning we put up sail but the wind soon died out and we came to a stand still while lying here one of the men shot a seal which we hoisted on board with considerable difficulty.

It was quite large weighing several hundred pounds and of a steel gray color.

We shortly afterwards got under way again and sailed during the remainder of the day at a fair rate. Toward evening the wind became fair and quite strong. We passed Bull River about noon and during the afternoon Broad River and were opposite

Point about sundown. Put in the day skinning birds of which I had quite a number mostly large ones.

July 21 Put up sail in the morning and had a quartering or fair wind nearly all day. Passed Cape Churchill about noon and at 5 P.M. had nearly reached the mouth of the Churchill River. Put ashore for wood and water. Here I saw tittlarks & Savanna sparrows. Continuing we soon reached the mouth of the river but could not enter against the current & tide. While waiting for a favorable chance to enter the river I shot a Narwhal ^(Phoca) seal, but it sank before we could recover it. A good many whales (white) and a few ^(the young) (black ones) were spouting and playing at the mouth of the river in the rapid current. Jerns & the small black head gull were common and I saw a few Jaguers. Several loons and many Eider ducks. We finally ^{got} to the mouth of the river and by hard work with the poles got the boat by the rapids and sailed

up the river about a mile. The
wind dying out we anchored
opposite several small buildings
where a small whale fishing
is carried on. Here we remained
all night.

July 22 No wind in morning
and we had to remain at anchor.
Started about noon to beat up
to the Post only 3 or 4 miles and
finally arrived between 4 and 5 o'clock.
We were met by Mr. ^{Ashton} Alston
The gentleman in charge of the
Post and given the freedom of
the place. In the storeroom were
skins of mink, otter, marten &
musk rats which came from
a short distance up the river &
a number of beavers from the
same source. They get many
Caribou skins mainly in the winter
and a great many white foxes
Arctic Hares are said to be found
among the rocks in the vicinity
and ground squirrels a few
miles up the river, Nit

July 23. Having made a trade
with the Indians for the seal
killed a few days ^{ago} I skinned it
with their help. Finding the skull
uninjured. Picked up a good skull
of the white whale. They used to
catch a great many but they are
getting scarce & shy and only a few
are now caught. and mainly for
food for the dogs but partly for
the oil.

In the afternoon we put out all
our small traps. We found abun-
dant signs of small mammals
among the rocks and about marshy
places. We also set a few steel
traps for weasels.

Shot a few birds including several
Harris' sparrows. Tree sparrows shore larks
& a redpoll.

July 24. Caught a good series of
Microtus but nothing else and
shot a lot of birds including
Bonapartes Gull, Plovers, Pigeon
Hawk etc. collected the young of Harris'
Sparrow just from the nest.

Fort Churchill

and several other interesting birds. Two boys reported seeing Snowy owls within a few miles of the Fort. In the afternoon reset some of our traps and skinned our mammals and a lot of birds.

July 25. Caught a large series of Microtus, and one Dicrostonyx, at its burrow. Got a number of birds not seen before, and my brother saw a Bohemian Waxwing and several Thrushes, (gray-cheked) but was unable to collect them.

Found Harris' Sparrow to be ^{fairly} abundant among the stunted spruces. They have a sharp musical chip which can be heard quite a distance.

Obtained a black-throated Loon killed in a pond back of the Fort.

July 26. Caught a large series of Microtus two Lemmings and one adult ♀ Phocaena. The latter was taken in a dry island a few ~~large~~ yards across, in the midst of a wet mossy marsh. Shot two Longspurs (Smith's Lepus) in the marsh in front of the Fort. They have a note

consisting of several sharp chirps uttered in rapid succession.

Also shot a Least Sandpiper and a Rusty blackbird. A large flock of the latter was seen. They probably have wandered down to the coast from up the river where they doubtless breed.

July 27. Got many Microtus: a Dicrostonyx and a Phocaena. The Lemmings seem to be uncommon and it requires a great deal of work to locate their burrows which are hidden, usually beneath a thick stunted spruce and as they do not make plain runways they are easily missed.

July 28. Got another Lemming and a Phocaena today, and a few Microtus. It rained hard nearly all day making proper attention to traps impossible. In the late afternoon while hunting on the marsh I shot a short-eared owl which was attracted by my squeaking. A fine northern shrike was seen but I could not get it.

Ft Churchill

July 29. Took another Lemming making only six taken during the week. Made Plans and preparations to leave tomorrow in birch bark canoe for Seal River or some favorable place for trapping to the northward where the ~~Boreal~~ ~~grasses~~ ~~are~~ country is more typically boreal. but owing to the lateness of the season and lack of transportation facilities I am afraid I shall not be able to get far or so very much. My brother will remain here collecting spending a part of his time at the shanty across the river where several men are engaged in catching the white whales in a large net. The men report the Huckie mice (Lemmings) to be much more common there than about here and we have hopes of securing a good series there. During the week 24 whales have been taken in the net.

Monday July 30. Having concluded to take a larger boat and attempt to reach the Big River (Great Whale or Fish River near Esquimaux Point) I left Ft Churchill in the forenoon at high tide (about 10 ~~o'clock~~ ^{o'clock}). We obliged to beat and row down the river and having to stop at the Whale Fishery near the mouth of the river about noon. we had dinner there. I saw several Turnstones there feeding on the beach also a great many Herring Gulls the small black head Gull, Colaptes.

Ferns, Bonapartes Bulls Juncos etc. We left as soon as possible but being unable to sail we had to row the heavy boat and so made little headway. We rounded the point and after following the coast N. Westward until nearly sunset, we encamped on the rocky beach back of Fort Churchill. intending to start by daylight. My brother as previously planned. remained at Churchill to collect. anticipating a trip a short distance up the river where there is some forest.

Tuesday July 31. To North River?

Left our camp at 6.30 with a strong head wind and beat & rowed along the shore until about 2 o'clock when being unable to proceed further we beached the boat. After lunch we went ashore the Indians to get wood and cook bread, while I took my gun and tramped over the grassy meadows for shorebirds of which I observed a large number and several species of ducks shot some shore birds and made up several species not before obtained. When the tide had flowed sufficiently about 8 P.M. we started on and rowed and poled until nearly 12 P.M., there being no wind, where we landed on a bare sandy islet on which some Arctic Terns had apparently nested as they kept up a clamor all night. (Young terns nearly ready to fly were found next morning)

Wednesday Aug 1 As soon as the tide permitted (about 8.30) we got our boat off and continued our way. After rowing until about noon we had a fair light wind and put up our sail and sailed until about sunset but not very fast. The wind then died out and we rowed until dark finally landing on a grassy point where we encamped.

Soon after leaving our camp on the Island one of the men fired at a duck and at the report thousands of Sandpipers rose from the beach where they had been feeding and forming into an immense flock circled about. They were too far off to distinguish any of the species. In the distance they resembled an immense swarm of insects. During the day we saw several Harp Seals and ~~and~~ several schools of the white whale.

Thursday Aug. 2 Near Seal R. to

Up early and while waiting for the tide to rise we cooked bread and gathered drift wood and got some good water anticipating a long days sail as the wind was strong and fair. At daylight found our camp was near the extremity of a long grassy & willowy point making out from Seal River the high rock at the mouth of it being plainly seen to the south-west. In the grass near our camp I found signs of microtus but was unable to catch any before leaving. Saw a track of Caribou made yesterday and an old fox track. A few birds were seen about the Point. After leaving we had a good breeze which soon freshened into a strong wind, nearly south, and we made good headway. During the afternoon we passed a high sandy & rocky island which the Indians called Rabbit Island. We continued

until nearly sunset, the wind continually getting stronger, when we anchored at ~~at~~ in the lee of a small sandy island with rocks and reefs all about. The tide was then coming in and the wind still continued strong. Impressed ~~off~~ on the Indians my wish to keep the boat afloat and we went to sleep, as it was too cold to keep up. I awoke several times during the night and found the boat afloat but at daylight after a short Friday Aug. 3 ~~nap~~ awoke to find the ~~boat~~ water just leaving the boat, the tide going out. I awoke the Indians at once and by lightening the boat of the heavier portions of our baggage we managed to get it ~~at~~ afloat. and continued on our way very much against the will of the Indians, especially the Captain, who considered the wind too strong to sail. I was determined however to take advantage of the fair wind, since the prevail

ing wind is from the north and a
sharp delay might spoil our
chances of reaching our destination.
It rained a little soon after leav-
ing and the ^{wind} freshened to almost
a gale but we cleared the
reefs and rocks without mishap
and sailed on at a great rate.
I saw two Pigeon guillemots about
8 o'clock. Just before 9 o'clock the
sky cleared somewhat and the
wind became less strong and
we were able to make a fire
in a frying pan and make some
coffee.

The coast since leaving our stopping
place near the mouth of Seal River
has been very uniform in character
low, and with a low and rocky
beach. Back from the shore there
appear to be occasional grassy
barrens with a few small eminences
perhaps 50 feet in height and
occasionally a few trees (spruces?)
About noon the wind became stronger
and I was unable to induce the

guide to sail further so beached
the boat at a sandy point.

I found abundant signs of
Microtus in the coarse grass on
the Point and holes of Summings
in the tundra but being un-
willing to remain over night
did not set traps. On my
proposal to take the boat out
at high tide during the night
the guide seemed unwilling to
proceed and professed not
to know the way but I made
the Indians take the boat out
and we anchored far enough
out to be afloat at low tide
and slept on the boat.

Saturday Aug 4. At daybreak awoke to find a
strong head wind blowing. Started to
try to row against it but after going
a mile or two the wind increased
so that we could make no headway
against it and we were in danger
of smashing the boat on the rocks
so put down the anchor and
the wind not abating I concluded

to put back to our last camp.
The nearest place to make a
landing and do some trapping.
Put out all my small traps
and before night had taken
40 specimens, 1 Dicrostonyx
14 Lemmus and the rest
Microtus, some of which I
skinned.

Sunday Aug 5. Made a very good
catch of Lemmus & Microtus but
no Dicrostonyx and worked all
day skinning. Found the ~~cave~~ skeleton
(part) of a Thalaxites with skull in
fair shape. This point seems to have
been a favorite camping place
and many skulls & bones of caribou
are scattered about. Shore birds
especially Redbacked Sandpipers
extremely abundant.

Monday Aug 6 Got a large catch
of Microtus & Lemmus and worked
nearly all day skinning them. Also
made up a few bones.
There was a light southerly
breeze and I tried to induce the

guide to start north & make an attempt
to reach the "Big River" but he absolute-
ly refused to go and my Indians
would not start without him so
I have given up attempting to
go further north. Expect to remain
here a day or two longer and
then work back toward Chinai
stopping to collect at favorable
places.

Tuesday Aug 7 Got a good catch of
Lemmus & Microtus and worked
nearly all day on them. About
4 P.M. Left camp with an Indian
taking traps & blankets to spend
the night a few miles back
from the shore where there
are gravelly ridges and where
I expected to find Dicrostonyx
of which I have taken but one
here. Set out all my traps
at good places for Lemmings
weather unfavorable, being rainy.
Found a fox den near where
we made camp and set steel
traps there in hopes of catching
an old one.

Wednesday Aug 8. Got up at daylight and looked at my traps. Got 11 Dicrostonyx, 1 Sciurus and some Microtus and a young fox at the den. Shot an Upland Plover Picked up my traps and after a light breakfast we went back to camp arriving there about 7 o'clock. Spent the day working on specimens until the tide came up. about 4 o'clock when we rowed out to two large sail boats which had anchored off shore about noon. Found them to be boats from Churchill manned by Eskimos and in charge of an interpreter, on their way back from Marble Island where they had been to trade with the Eskimos. It learned from the interpreter that we were but a short distance from the "Big River" and that a short distance beyond there I could get Ground squirrels. I engaged one of the Eskimos to take me to where they were found and back

to Churchill. While my former guide Sam Derry expressing a desire to return to Churchill on one of the boats I gladly parted with him and as the wind was favorable started northward at once. We sailed until about 10.30 when it became too dark to proceed safely so we anchored and passed the night in the boat.

Thursday Aug 9. It rained and blew hard during the night and every thing aboard was wet. In the morning it stopped raining and we started again. and about noon the wind changed to the north so we could sail no longer. We then rowed ashore until the wind became too strong to proceed when we anchored. after passing several miserable hours in the boat over which the spray dashed continually the tide became high enough to enable us to get in close to shore. I supposed we must go further on to find Spermophilus, but the

Eskimo mentioned to me to take traps which I did and followed him & had gone but a few hundred yards when I saw a ground squirrel run to its burrow. I found a number of burrows and set all the traps I could before dark. They do not seem to be abundant but I have hopes of getting a fair series.

Friday Aug 10. Found three *Spermophiles* in my traps this morning and set the remainder of my traps in likely places. Saw several wolves and got a long shot at one but missed.

Saturday Aug 11 Took only one *Spermophile* today. Reset a number of my traps. The ground squirrels live on little ridges, a few feet higher than the surrounding marshy tundra and as there is usually only one burrow on a ridge and they are quite widely scattered, it requires

a great deal of work to get any. They do not seem to be very active as none have been seen since the first one, except those caught in traps.

About noon I shot a male caribou quite close to camp. The Eskimo was hunting and in following the animal it happened to run toward the camp. Seeing it across a river, I went after it with my rifle and killed it at the first shot. He skinned it and partially prepared the skin for drying. The Eskimo killed a smaller one yesterday after hunting all day and came back this morning with some of the meat, I should judge about half, and I presume that he ate the rest of it.

Sunday Aug 12. No *Spermophiles* in my traps today, though I had all out and set as well as possible. The animals have un-

donatedly commenced to hiber-
nate ~~and~~ as I have seen none
since the first one and I find
burrows with dirt freshly push-
ed out from the inside, appar-
ently the final closing up for
the winter. In the afternoon while
looking at my traps. I saw
a caribou which had been
startled by the Indians. It
passed quite close to me, but
as I did not have my rifle
I could not secure it.

also saw a polar bear on a
ridge about a mile from
camp. As the Eskimo was
hunting in that direction. I thought
he might kill it, but the bear
moved off to the northward and
the Eskimo did not see it.

Monday Aug 13. Took up all my
traps this morning as I did
not think it advisable to stay
any longer on account of the
difficulties to be encountered
in returning and it seems

impossible to get any more
Spermophiles. We left early
at high tide and though we
had the wind against us all
day, we managed to make a
very good days journey getting
back nearly to our former
camp where I engaged the
Eskimo.

During the forenoon we saw
four caribou on the shore
Two of these were close to
the beach and regarded us
as we passed them apparent-
ly with great curiosity one
of them walking along
the beach opposite us for
some distance. We saw great
numbers of Sandpeeps of
several species. flying south
ward and 1 black breasted
Loon ^{Garcia} ~~the first~~ and
a number of Sanderlings the
first I have noted

Tuesday Aug 14. Left camp quite early as soon as the tide permitted and set sail with a fair but light wind which kept up until about the middle of the afternoon when it died down and we were obliged to row. Nothing of especial note occurred during the day. We landed just before sunset on a grassy point having made a fair days journey. While the men were cooking supper I hunted about the beach for ducks for food and killed some. I also found the body of a harbor Seal (Phoca) which had been cast up by the tide. It seems quite fresh and I think I shall be able to save the skin. so shall attend to it early in the morning. Shot a Turnstone from a small flock on the rocks when we landed and afterward saw another flock.

(On further investigation I find that we have not come as far as we thought and are now camped near our former camp ^{Cape Testunio.} where I collected Aug 4 to 8.)

Wednesday Aug 15. Left camp quite early having skinned the seal. and sailed at a good rate all the forenoon. In the early part of the afternoon the wind died down so we were obliged to row. Toward evening however it freshened again and we sailed until nearly dark and camped on a grassy point a few miles above what I think is Rabbit Island. In the grass at camp I found signs of Microtus and set all the traps I could before dark.

Thursday Aug 16. Took up my traps in the morning, securing over 20 Microtus, apparently the same as secured at other camp near "Big River". While we were waiting

ing for the tide to rise sufficiently for us to start. a party of four Eskimos came along in their kayaks. They proved to be a part of the crew of one of the "Marble Island" boats and report that one of the boats run upon a rock a day or two ago and is smashed beyond repair. They had killed a white bear a day or two since and had its skin with them, divided in four parts. As soon as we could get our boat off we pulled out and they resumed their way northward. We were only able to sail a short distance when the men were obliged to pull. and as there was a side wind we made rather slow progress. and only succeeded in rounding Rabbit "Island" and pulled into an inlet where we could obtain fresh water. The tide was then about two-thirds in and

as soon as we could land we anchored the boat. The Eskimos volunteering to remain on the boat so that we could start earlier in the morning.

Rabbit "Island" turns out to be only a promontory connected with the main land by grassy marshes with boulder-strewn ridges a few feet high, traversing it in various directions. This marsh is probably covered by exceptionally high tides, so that the point may at times become an Island. The Eskimo gave me to understand by signs in answer to my inquiry which I managed by signs, and a sketch of a rabbit that they (Arctic Hares) were found sparingly all along the coast but not especially on this point. It looks very much like rain. I intend to be up early to hunt and try to secure a Hare, as I fear I shall not be able to get any further south.

Friday Aug. 17. Was up at sunrise and put in the time hunting about the ridges where I hoped to see Hares and to my great delight started two old ones both of which I secured. I discovered the first one sitting motionless about 25 yards in front of me and he resembled a bouder so closely that I had to take a close look to be sure of his identity when I lost no time in securing him. The second was started near the same place about half an hour later, after I had hunted about all the ground in the vicinity and had started to cover the ground again, and killed on the run. I also killed a weasel among the rocks near the camp. Beneath the rock on which I shot it, I found the remains of several Microtus of the species I have taken above here. I found the two larger

species of willow which I have collected north of here, the smooth-leaved one growing in good sized clumps and being in some cases 2 inches in diameter at the base, but only about 3 feet high. Found also a shrub, with bright red berries having a bitter taste and collected a sprig of it. I think I have taken it further south. on the way up. About 8 o'clock ~~we~~ were able to get our boat off and started and rowed against the wind until about noon, when it blew so hard that we could make no headway. So we put down the anchor and waited hoping for a change or lull in the wind but it only increased in force so when the tide began to come in. we ran the boat in a small bay with sandy bottom and the Indians and I went ashore. We found plenty of drift wood and I skinned my Arctomys Hares by the light of the camp-fire

Saturday Aug 18. We got away quite early but there was a strong head wind and we made slow progress with the oars. About noon we were able to sail a few miles but were unable to get around a long point so selecting a good spot we anchored and as soon as we could land went ashore. It had commenced to rain heavily in the meantime. I left the Eskimo provided with a waterproof covering and he remained aboard as usual. We made camp on the nearest grassy point and while the men were cooking supper I explored the vicinity. The ground was mostly marshy but rocky ridges evidently old Points & shore lines, on which were growing a few stunted Tamaracks. A few miles back Trees undoubtedly of this species were growing in considerable abundance and these had been visible back a few miles from the coast about 15 miles ~~to the~~ north of this

point. being the limit, I think, of trees in the vicinity of the coast. Several species of willows grow rather luxuriantly over a good portion of the marshy ground and many small ponds occur. To the south-west a high Rocky mound said to be at the mouth of Seal River is just visible.

Sunday Aug 19 Got away from camp early and sailed all the forenoon with a good wind, about noon arriving within sight of the old Fort and the beacon at the mouth of Churchill River. The wind then died down and we had to row. Instead of rounding the point I ~~got~~ landed on the north side within two miles of the Fort and walked across. ~~to the~~ The men continued on round the point, and did not arrive at the Post until the middle of the night.

On my arrival, I learned that the ship had come and sailed away this morning. My brother

had packed a box with what heavy material we had and sent it to the depot by way of Rigoulette. I had hoped to arrive in time to send the caribou skin, seal skin and other bulky ^{things} that I had taken northward but now ~~we~~ shall be obliged to take it all out with us in the canoe.

During my absence, my brother had made a trip about 15 miles up the river in hopes of getting species that we could not obtain in the immediate vicinity of the Fort. He found it to be a poor place for mammals, however and could not trap many, but he obtained several species not taken here, (Fiber, Putorius, Eutamias) and some birds. After returning from this trip, he camped some miles across the river and found Dicrostonyx ~~and~~ to

be fairly common and obtained a good series of adults and young of various ages. He also obtained a number at the Old Fort at the mouth of the river on the 17th. Altogether, he collected over 70 Dicrostonyx.

I made arrangements to start for York Factory on Tuesday it being as soon as I thought we could get things packed up, as I had brought some specimens with me unskinned, which would have to be attended to.

Monday Aug 20. We were up early and put in the day skinning and packing specimens.

Tuesday Aug 21. Finished our preparations for departure, finishing our packing and skinning and took some pictures. Left the Fort at about 4 P.M. (high tide) and had a fair wind down the river. After leaving the mouth of the river the wind was not with us but we made good progress as the

boat was a good sailor and at sunset the old fort at the mouth of the river was nearly out of sight.

Wednesday Aug 22. We lay at anchor during the night as it was too dark to sail. Started at an early hour, but had to lay by about 9 a.m. on account of head wind and did not get away until 3 p.m. During the interval we tried to catch some Microtus as there were a few runways on the high grassy point where we went ashore, but they were not common and we ~~only~~ caught none. In the ponds, a little back from the point there were many ~~Golden-eyed~~ ^{Sculpin} ~~ducks~~ ^{*Arctomys marila*} ~~green wing~~ ^{Zeals} and I shot some for food. Shore birds were rather common on the beach and about the ponds especially *H. Phalaropus* in the thick grass on the point a white bear had lain within a few days.

After getting started again, we had a good wind and sailed at a good rate. Passing Cape Churchill about 6.30

Thursday Aug 23. Started to sail about 4.30 a.m. and got 15 or 20 miles past Cape Churchill when the wind changed to southerly and we had to anchor and lay at anchor the rest of the day. Saw many Turnstones and common Ferns and a few Herring gulls. & Broad eyed ducks. Also saw 2 or 3 sooty black gulls or birds very closely resembling gulls (Probably very dark immature birds).

Friday Aug 24 Strong head wind all day and we were unable to sail. Just before noon we pulled the boat in toward shore and beached her and as soon as the tide went out, we went ashore, as there was no prospect of a change in the wind.

The surface back from the shore was barren except for willows and birches and an

occasional dwarfed spruce and crossed in various directions by sandy & gravelly ridges. The remains of former shore-lines, with many ponds and marshy places between the ridges.

On the gravelly ridges we found many burrows of *Dicrostonyx* and before night had trapped and dug out about 20. The burrows usually started beneath a piece of driftwood and usually proceeded nearly horizontally for 18 inches or two feet to the nest which was made of grass & moss and occupied a small chamber about 4 or 5 inches in diameter. From this there was usually a passageway leading off about 18 inches farther evidently intended as a place of refuge. This did not end in a chamber but merely terminated, and at its extremity we usually found the animal—when the burrow was tenanted. Sometimes this passageway of

refuge branched off from the main passage before the nest was reached. We dug into a good many burrows which contained nothing, and as there was nothing in the appearance of the entrance to indicate this, one is likely to set many traps at unoccupied burrows, so digging seems to be the most satisfactory way to obtain specimens. But one adult animal appears to occupy a burrow. We captured several in burrows which merely ran beneath a piece of half-buried driftwood, in which case, cavities in the log formed a part of the burrow. One litter of 4 young was found in a nest. Nearby an old one was seen to take refuge in a shallow burrow at the roots of a willow. It proved to be an adult ♀ and was doubtless the parent of the young ones taken.

Many burrows and runways of *Microtus* we found at the edge of the ponds and a line of traps set for them

Saturday Aug 25. We slept ashore as I wished to leave some traps set and before daylight awake and found that the wind had changed to the north. (It rained quite heavily during the night) As soon as it was light, I picked up my traps, securing a fair series of Microtus and as soon as the tide ^{about 5.30} permitted, we set sail with a fair, strong wind. Toward noon the wind died down a little but about 12. freshened again and we made fine progress and at dark had nearly reached Stony River.

Sunday Aug. 26. Set sail at daylight and about 9 o'clock reached Stony River and about 5 P.M. we sighted the Beacon on the Point of Marsh at the mouth of Hayes River. We could not get in at once on account of low water and it was quite dark when we were able to enter the River but we

fortunately had the wind in our favor and were able to sail up to the Fort at once and arrived there about 10.30

Monday Aug 27 Spent the day preparing the specimens we had on hand and in packing up our outfit and accumulated material.

Tuesday Aug 28. Finished our packing and made everything ready to start and left the Fort about 4.30 and commenced tracking by which means we have to ascend the river until we reach the Rock Portage over a hundred miles. We made 8 or 9 miles and at dark made camp on the left bank of the river.

Wednesday Aug 29. Made an early start and made fair progress until about noon when we struck two rocks within a short distance, breaking the boards so that the canoe leaked badly. While the men were getting dinner we dried the broken places and

mended them, and got away again after about two hours delay.

~~and~~ we camped at dark on the left bank of the river having come about 25 miles from York. and set a few traps.

Aug 30. Took 2 Eutamias & one Peromyscus.

Made an early start and at dark had passed the mouth of the Shamatawa River a short distance. Camped at the mouth of a small stream and set some traps.

Aug 31. Took Peromyscus, Zapus & Microtus. Rain commenced to fall about daylight, so we delayed starting, and made up our specimens. Left about 9 o'clock and made good progress the rest of the day and camped about ~~dark~~ sunset. Set out a line of traps in bushes and grass on the bank of the river.

Saturday Sept 1. Took Peromyscus, Microtus & Eutamias in my traps and shot a red squirrel

near camp. Left camp about 6 o'clock with prospects of a good day. Reached the mouth of the Fox River about noon and stopped for dinner. Near here saw Populus tremuloides and Betula papyrifera, this being their farthest point reached by them on this river as far as I know. Saw moose tracks a few miles ^{Fox River} below. Proceeded on up the river until nearly dark. The River is a succession of rapids here and tracking was very difficult. I think we made only about 10 miles during the afternoon.

Sunday Sept 2. Commenced to rain about daylight and rained quite steadily until nearly noon, so we were unable to proceed. We skinned what specimens we had on hand and mended our canoe, which had broken the day before and was leaking badly. Left about noon as the rain had abated and continued on until dark

It rained a little during the afternoon but we had the baggage covered and thought it best to keep on. Camped on the left bank of the river with prospects of more rain.

Sept 3. Left camp early and continued on our way. It was cloudy during the forenoon and it rained slightly but cleared about noon and shortly afterward we arrived at the Rock Portage where our trucking ended. We made this Portage and two others a short distance above and camped just before dark at the last which the Indians called the Half Reed Portage where the River makes a semi-circle. Shot a red squirrel and set out a good line of traps. A short distance above the Rock Portage I saw Fir trees (Abies) ~~which~~ the first of the kind seen so far. Since leaving York

Factory the Spruces and Lamarcks have been gradually increasing in size until now trees a foot and a half in diameter are quite common.

Sept 4. Took about 10 mice in our traps. Eutamias & Peromyscus. Left camp early and continued on up the river, which is an almost continuous succession of rapids. Made 10 Portage during the day though at some of them the boat was not carried but was hauled up the rapid by the rope. Passed Brassay Hill about noon. Camped at dark at a portage and set a good line of traps.

Sept 5. Took Eutamias (both color phases) Peromyscus, Sciurus, and got away from camp early as usual. Made only 3 portage but poled and paddled up a great number of rapids and only made a few miles. Shot a mink near the outlet

of Swampy Lake. which we reached about 4 o'clock. Paddled up the Lake until nearly sunset when we camped on a point. where we camped on July 6. Put up the tent and in the evening made up what specimens we had on hand, about 20. Have all my traps set in promising places and hope to get some good specimens. Am trying to trap as much as possible as we collected but little in this region on the way down owing to lack of time.

Sept 6. Took two species of Sorex richardsoni and a small one. a good series of Eutamias and a mink. Left camp at 6.30 and soon passed out of Swampy Lake into the Jack River which we ascended making 4 portages and poling up many rapids. Reached Knea Lake about

4. PM. and found a stiff breeze in our faces we made good progress however and camped about sunset on a point some 8 or 10 miles from the outlet. Set out most of my traps but do not consider the place very favorable for trapping.

Sept 7 Took up my traps but did not catch much. A strong head wind was blowing and after paddling a couple of hours and making but a few miles it became so strong that we did not consider it safe to proceed farther and landed on a small island not far from the eastern shore of the lake. Here we remained until nearly night the wind meanwhile increasing to nearly a gale. Toward evening it moderated somewhat and we proceeded on a short distance and camped on another island. Just before landing

I shot a mink which we saw swimming in the water. We set out a few traps and as we had finished up all our skinning we retired quite early anticipating an early start.

Sept 8. Took 5 Eutamias in traps. Were up before light and left camp about 5 o'clock before the sun had risen. The wind was still quite strong in our faces but we were able to proceed and reached the "narrows" about 9 o'clock. shot a mink and a red-throated Loon. There was little wind in the "narrows" and we soon reached the southern portion of the Lake. Here the wind was very strong and progress very difficult. We were able to proceed however and after a hard day's work at the paddles we

arrived at the Front River Falls within 9 miles of Oxford House. Here we camped and set out some traps.

Sept 9. Left camp quite early and proceeded up the Front River. We made several partial portages and poled up several rapids and about noon reached Back Lake and an hour or two afterward arrived at Oxford House. We found Mr Campbell had collected a number of chipmunks for us and a few skulls. The chipmunks were in formalin and we skinned them and as I could not spare the time to stuff them properly, salted them. We set out our traps to get a few more specimens and skinned the minks and other specimens we had on hand. May remain here another day.

Sept 10 Concluded to remain another day and put in most of the day working on specimens and packing. In the afternoon went out on the marsh between Oxford & Back Lakes to see what birds were about. Saw several snipe (Gallinago) several Bitterns. Greater yellow-legs, Pectoral sandpipers etc.

Sept 11 Took up traps, packed specimens, and a little before noon left Oxford House and proceeded up the lake. We had a head wind at first but about the middle of the afternoon the lake became calm and we made good heading and camped about 10 miles from the upper (southern) end of the lake and set out all our traps. The shores of Oxford Lake are mainly solid rock as is well shown at the present low stage of the water. The rock below high water mark being bare. Above

that Point where not denuded of its growth by fires the shores are well wooded with spruce, fir, Poplar (both species) birch tamarack, etc.

Sept 12 Took Eutamias & Peromyscus in our traps. Left camp early and found a hard head wind to paddle against. After going a short distance, it rained heavily for about half an hour during which time we landed by. We reached the end of the lake about 10 o'clock and entered the river connecting Muddy & Oxford Lakes. This we ascended making two full portages and twice lightening the canoe and hauling it up by means of the line. Reached Muddy Lake about ^{1 o'clock} ~~two o'clock~~ and had dinner an hour later near the middle of the lake. Also encountered a hard head wind on this lake. The shores are similar to those of Oxford Lake but more

almost entirely swept by fire
within a few years. We soon
entered the channel of Pine
Lake which is winding and
marshy shore. Saw a few mollusks
and muskrats and shot a skunk
about half way to Pine Lake
which we reached just before
dark and camped near its
outlet and set out our traps
in the rain.

Sept 13. Took Estomay & Bermyson
to our traps and left camp
early. We went on
the lake shore and saw
at night. To the west of the
lake, a rapid and passing
through a narrow channel
and for a few hundred
yards reached another lake.
A flock of Red-b. Mergansers
was seen and several shot.
After paddling a few miles
we made a portage of about
a mile to another lake
and before starting

ing again had a lunch. After
paddling on we came
came out into a narrow lake
which we had passed through
when coming down, just above
the Hell Gate Rapids which we
have avoided by coming
by this other route. Shortly
after noon we reached the
channel which is a few
miles below the
portage which we reached
about 4 o'clock. As we had
some work to do we
went out of canoes. We con-
cluded to camp at the upper
end of the Portage and found
things up as we could not
make any great distance
before dark. We accordingly
dined after having dinner
and after finishing up our
skinning we set our traps
at the upper end of the Portage.
Muskrats were common here
and I set a couple of traps for them.

Sept 14 Took a few specimens of
mammals including *Fiber*, *Peromyscus*, *Microtus*,
Eutamias & *Peromyscus*. Left
camp early in the forenoon and
passed through the small lake
and through the narrow deep
channel with rocky banks then the
small lake to the height of land
(Pawnee Stone Portage) at the head
of Echamunish where the
reach about 11:30. The upper
part of it was very shallow the
middle a longer portage here
than usual and that of
putting the traps, two being
seen. The upper part of the
Echamunish was very low and
we had to trace a good deal
after passing the upper dam
the water was deeper and
the middle dam being with
us. Below this was more low
water but it soon became
rapids and we pulled a
little in one place, stopped at
dark a short distance above
the lower dam and left for 10:30

Sept 15. Took a few mammals and
left camp as soon as it was
fairly light soon crossing the
lower dam where we portaged
to the River. Having done
about noon and passing
through the channel which
by Poplars and through the
River. We made the
lower River Fall where we
made a good portage and
camped. Set out traps.

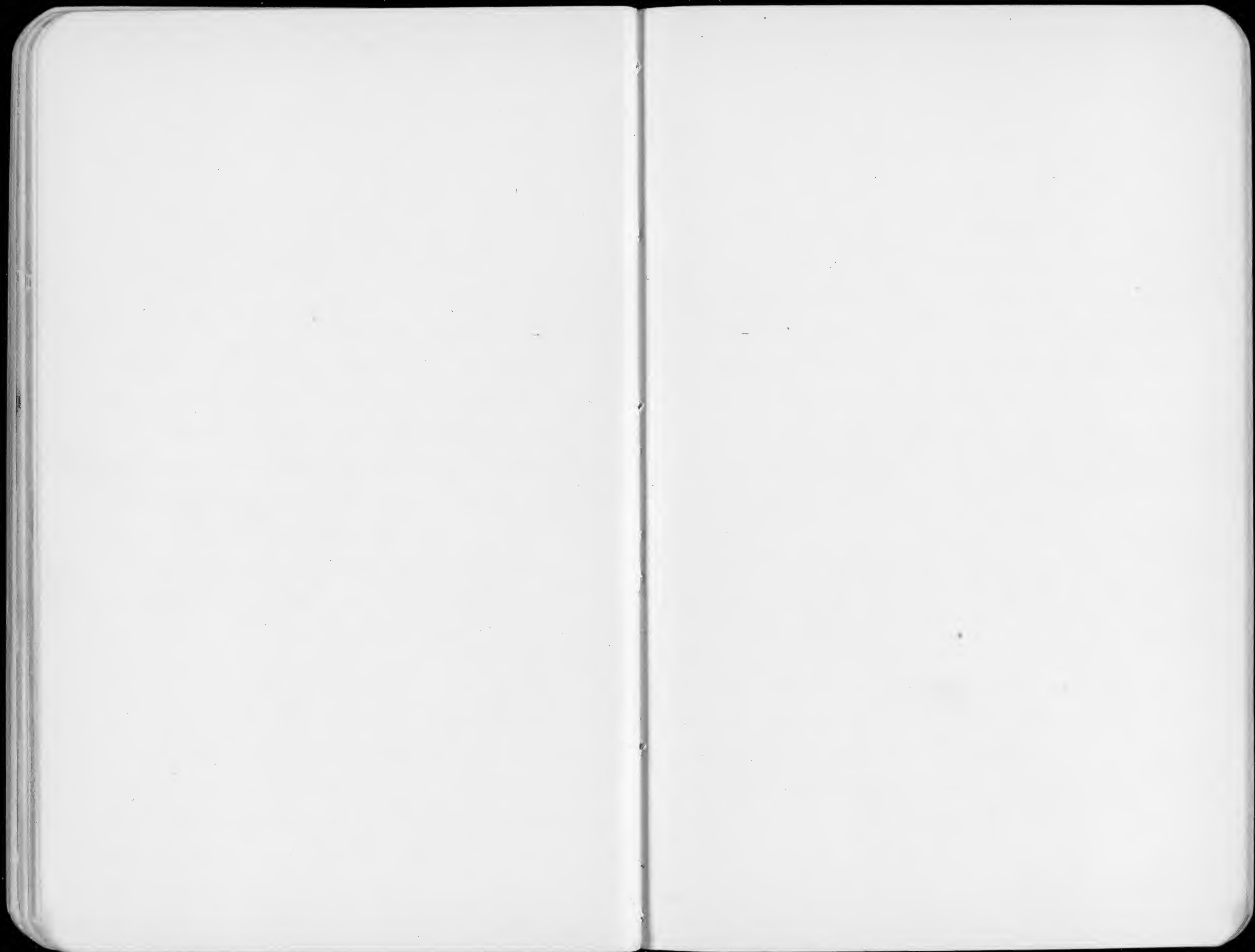
Sept 16 Took a few mammals
in traps and about
early in the forenoon
which we reached shortly
after noon. Found the team
had not arrived being nearly
a week late. About noon
traps were set and a few more
specimens and at once began
to make preparations for a party.

Sept 17 Took a few mammals
and skinned skunks
which specimens we had in
hand. In the evening we made

Large loads.

Sept 18. Packed everything
ready to ship.
The steamer has been heard
from and we rec'd mail
from her. She cannot
come into the river on account
of low water.

Sept 19. Left morning house
with all our baggage in a
large tug, the Frank Boston.
We catch the steamer at
Marion Landing where
she is supposed to come
to take the fall shipment
of furs. We will settle in



175	♀	7/16 2 10/100	Memorandum near Rabbit Isl
177	♀	"	"
178	♀	"	"
179	♀	"	"
180	♀	"	"
181	♀	"	"
182	♀	"	"
183	♀	"	"
184	♂	"	"
185	♂	Prithomus	"
186	♂	Lepus	"
187	♂	"	"
188	♂	"	"
189	♂	"	"
190	♂	"	"
191	♂	"	"
192	♂	"	"
193	♂	"	"
194	♂	"	"
195	♂	"	"
196	♂	"	"
197	♂	"	"
198	♂	"	"
199	♂	"	"
200	♂	"	"

Aug 16.	136	38	20	
"	140	42	20	
"	136	40	20	
"	141	42	20	
"	138	40	20	
"	132	38	19	
"	105	32	18	
"	105	34	18	
"	175	47	19	7/16 2 10/100
Aug 17.	305	90	40	
	550	83	155	
	570	80	154	

North of Marshall
Near Nth Sand River Aug 4

1	♂	Imm
2	♀	Microstomys
3	♂	Microtus
4	♂	"
5	♂	"
6	♂	"
7	♂	"
8	♂	"
9	♂	"
10	♂	"
11	♂	"
12	♀	"
13	♀	"
14	♀	"
15	♀	"
16	♀	"
17	♀	"
18	♀	"
19	♀	"
20	♂	"
21	♂	"
22	♀	"
23	♀	"
24	♀	"
25	♀	"

150	22	20
110	15	18
145	40	20
134	38	19
137	42	20
142	41	21
145	41	20
140	40	20
135	39	19
140	41	20
130	39	20
192	50	21
165	45	20
172	48	21
130	38	20
133	37	20
142	48	21
122	35	19
134	37	19
177	51	21
31	30	18
170	48	20
146	44	20
135	39	20
127	37	20

10 embryos

2nd day of life

26	♀	Microtus
27	♀	"
28	♂	Fennius
29	♂	"
30	♂	"
31	♂	"
32	♂	"
33	♀ ad	"
34	♀ ad	"
35	♀	"
36	♀	"
37	♀	"
38	♀	"
39	♀	"
40	♀	"
41	♂ ad	"
42	♂ ad	"
43	♂	"
44	♂	"
45	♂	Microtus
46	♂	"
47	♂	"
48	♀ ad	"
49	♀ ad	"
50	♀	"

Aug 4	110	30	18	
	100	27	16	
	135	21	20	
	120	21	19	
	122	20	19	
	118	21	18	
	105	19	18	
	142	23	20	4 large embryos, testis 4 ^{4 ing} feet.
	100	20	20	6 embryos (1 very small) testis 4 feet. 4 ing
	125	21	18	
	132	22	18	
	124	19	20	
	105	19	20	
	105	20	19	
	118	20	18	
Aug 5	142	19	18	
✓	150	23	20	
	115	21	20	
	105	20	18	
	145	41	22	
	132	40	20	
	100	29	18	
	190	50	20	testis 4 ing. 4 feet. 8 embryos
	180	50	20	" " " " 7 "
	130	38	19	

51	♀	Microtus
52	♀	"
53	♂	"
54	♂	"
55	♂	"
56	♂	"
57	♂	"
58	♂	"
59	♀	"
60	♀	"
61	♀	"
62	♀	"
63	♀	"
64	♀	"
65	♀	"
66	♂	Lemmus
67	♂	"
68	♀	"
69	♀	"
70	♀	"
71	♀	"
72	♀	"
73	♀	"
74	♀	"
75	♀	"

Aug 5	126	35	20
	95	26	17
	142	41	20
	142	41	20
	137	41	20
	138	39	20
	120	35	19
	100	27	17
	175	44	19
	150	40	20
	142	42	20
	140	41	20
	133	38	20
	120	33	18
	95	25	16
	160	22	20
	112	20	18
	150	21	20
	155	22	20
	160	22	20
	156	24	20
	133	20	19
	114	20	18
	112	18	18
	105	18	18

Memoranda

76	♀	<i>Scimmus</i>
77	♂	"
78	♂	"
79	♂	"
80	♂	"
81	♀	"
82	♀	"
83	♀	"
84	♀	"
85	♀	"
86	♀	"
87	♀	"
88	♀	"
89	♀	"
90	♀	"
91	♀	"
92	♂	<i>Microtus</i>
93	♂	"
94	♂	"
95	♂	"
96	♀	"
97	♀	"
98	♀	"
99	♀	"
100	-	<i>Hesperomys</i>

Aug 5

Aug 6

110	20	18
115	21	20
120	20	20
125	19	18
130	20	18
142	21	21
146	21	19
150	25	20
130	20	19
150	23	21
148	23	20
130	23	20
132	21	18
112	22	17
105	17	18
110	19	18
142	43	21
130	42	20
110	31	17
120	34	19
110	27	18
135	40	20
120	38	20
140	40	20
about 6 feet	-	-

Skull only

101	♂	Lemmus
102	♂	"
103	♂	"
104	♂	"
105	♀	"
106	♀	"
107	♀	"
108	♀	"
109	♀	"
110	♀	"
111	♂	Microtus
112	♀	"
113	♀	"
114	♂	"
115	♂	"
116	♀	"
117	♀	"
118	♀	"
119	♂	Lemmus
120	♂	"
121	♂	"
122	♂	"
123	♂	"
124	♀	"
125	♀	"

New York Sound River

Aug 6

120	-	19	Tail gone
120	20	19	
115	18	18	
110	16	18	
122	22	20	
130	21	19	
118	20	20	
115	21	19	
115	22	18	
105	18	18	

Aug 7

-	-	-	Information
135	37	21	
125	35	20	
-	-	-	Tail - missing
-	-	-	
-	-	-	
-	-	-	
128	21	19	
105	17	17	
108	18	18	
108	17	17	
115	18	18	
155	20	20	Tail at point of eye
130	20	19	

126	♀	Lemmus	near Mith-Sund R.
127	♀	"	
128	♀	"	
129	♀	"	
130	♀	"	
131	♀	"	
132	♀	"	
133	♀	"	
134	♀	"	
135	♂	Microstonyx	
136	♂	"	
137	♂	"	
138	♂	"	
139	♂	"	
140	♂	"	
141	♂	"	
142	♀	"	
143	♀	"	
144	♀	"	
145	♀	"	
146	♂	Lemmus	
147	♂	Microtus	
148	♂	"	
149	♀	"	
150	♀	Vulpes lagopus	

Aug 7.

136	21	20
125	20	19
118	20	18
125	18	19
110	20	17
117	20	19
118	21	19
110	19	18
105	19	18

Aug 8.

152	21	20	Gravelly ridges back from shore
146	20	19	"
121	19	18	"
132	18	18	"
120	19	17	"
120	18	17	"
105	18	16	"
126	18	18	"
124	18	18	"
120	17	17	"
115	18	17	"
✓ 130	17	18	"
155	21	20	"
95	31	17	"
145	21	20	"
640	250	120	at same ridge

151	♂	Spermophilus	above "Long River"
152	♂	"	"
153	♀	"	"
154	♀	Microtus	"
155	♂	Spermophilus	"
156	♂	Rangifer	"
157	♂ juv	Peromyscus	"
158	♀ juv	"	"
159	♀ juv	"	"
160	♀ ad	"	"
161	♀	"	"
162	♂ ad	Phoca	Near North Sand River
163	♂ ad	Microtus	Mainland near North River
164	♂ ad	"	"
165	♂	"	"
166	♂	"	"
167	♂	"	"
168	♂	"	"
169	♂	"	"
170	♀ ad	"	"
171	♀ ad	"	"
172	♀ ad	"	"
173	♀ ad	"	"
174	♀ ad	"	"
175	♀ ad	"	"

Aug 10	380	120	65	
"	390	110	64	
"	392	114	57	
"	150	20	20	
Aug 11	400	115	64	
"	2m.	160	580	
" 12	76	8	12	Found in nest - 1 egg - 1 of 20160
"	80	5	13	"
"	80	10	13	"
"	140	19	18	Running Contained - 1 egg - 1 of 20160
"	140	18	17	
Aug 14	1m. 500	100		
" 16	182	51	20	
"	142 ⁺	24 ⁺	21	Half - 1 egg - 1 of 20160
"	150	42	21	
"	155	38	20	
"	147	30	20	
"	142		20	
"	137		20	
"	179		21	
"	182	30	20	
"	150	30	20	
"	172	40	20	
"	158	40	20	
"	166	40	20	

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